

REMARKS

In response to the Office Action dated February 6, 2007, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims.

Claims 1-6 were rejected under 35 U.S.C. § 102, on the basis of the Couwenhoven et al. patent (US 6,435,657). Applicants respectfully submit that the Couwenhoven does not anticipate, nor otherwise suggest, the subject matter recited in the claims. To advance the examination of the application, original claims 1-8 have been canceled, and new claims 9-20 are presented herein.

As disclosed in the specification, the invention is directed to ink-jet printing, in which multiple drops of ink, of different respective colors, are superimposed upon one another, to form a requested color. When a desired color consists of a number of constituent component colors, the resulting thickness of the printed color can be substantial. An objective of the claimed subject matter is to reduce the thickness of a printed layer. This objective is particularly significant in the field of smart cards and credit cards, where it is desirable to keep the card as thin as possible.

Claim 9 recites a method in which an equivalent color is established for each of a plurality of colors that might be requested for printing. In a preferred implementation of the invention, each equivalent color has a fewer number of component colors than its corresponding color. The equivalent colors are stored in association with their corresponding colors, for example in the form of a table as shown in Figure 4. When a request to print a color at a particular pixel location is received, the stored equivalent color for the requested color is retrieved, and a drop of ink for each of the components of the equivalent color is printed at the location of

the pixel. Thus, a smaller number of drops of ink are printed, thereby reducing the overall thickness of the printed layer.

The Couwenhoven patent is directed to the reduction of artifacts that can occur in a digital printer. To achieve this objective, the patent discloses a reduction in the amount of colorant that is employed. To this end, the patent discloses that a total colorant amount limit is determined for a particular printing environment. Referring to the passage beginning at column 7, line 61, this limit is determined by printing solid patches having various amounts of ink, and setting the limit to the highest value patch that is free of artifacts.

Referring to Figure 1, once the total colorant amount limit is established, it is supplied to an ink depletion processor 20, which produces a depleted image signal that represents modified colorant amounts. This depleted image signal then goes through multitone processing, and is supplied to an ink jet printer 36, which deposits ink on a page.

It is respectfully submitted that this disclosed technique is not the same as the subject matter recited in the pending claims. For example, the Couwenhoven patent does not disclose the determination of an *equivalent* color for each of a plurality of requestable colors. Rather, it discloses a formulaic approach for reducing the amount of colorant that is employed in the printing process. See, in particular, column 8, lines 6-43. The patent does not disclose that the color which results from this formula is equivalent to the original color, namely that it produces substantially the same color rendition in accordance with the sensory response of the human eye. In fact, at column 9, lines 4-7, the patent discloses that the modified color may have a perceptible color error.

Furthermore, in the technique of the Couwenhoven patent, the modified colors are dynamically computed for each print request, based upon the total colorant amount limit. The patent does not disclose that equivalent colors are pre-established for requested colors, and these equivalent colors are stored in association with their corresponding original colors. More particularly, the Couwenhoven patent does not disclose that the equivalent colors are stored in the form of a table, as recited in claim 11.

As a further feature of the invention, claim 14 recites that, for at least some of the requestable colors, a plurality of equivalent colors are established at different levels of correspondence. Dependent claim 15 recites that the different levels of correspondence are respectively associated with different ranges of wavelength differential between the original color and the equivalent color. See, for example, the discussion beginning at page 8, line 24 of the present application. The Couwenhoven patent does not disclose any relationship between the wavelength of an original color and that of the modified color. Nor does it disclose establishing a plurality of modified colors for a given color, each of which is associated with a different range of wavelengths.

For at least the foregoing reasons, it is respectfully submitted that the subject matter of the currently pending claims is not anticipated by the Couwenhoven patent.

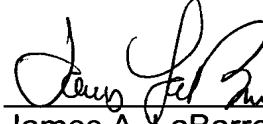
Reconsideration and withdrawal of the rejections, and allowance of all pending claims, is respectfully requested.

Respectfully submitted,

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